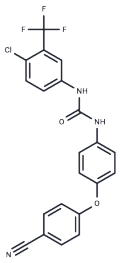
Data Sheet (Cat.No.T22424)

TargetMol

1-(4-Chloro-3-(trifluoromethyl)phenyl)-3-(4-(4-cyanophenoxy)phenyl)urea

Chemical Properties



CAS No. : 1313019-65-6

Formula: C21H13ClF3N3O2

Molecular Weight: 431.8

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	1-(4-Chloro-3-(trifluoromethyl)phenyl)-3-(4-(4-cyanophenoxy)phenyl)urea is a a derivative of the multiple tyrosine kinase inhibitor sorafenib. 1-(4-Chloro-3-(trifluoromethyl)phenyl)-3-(4-(4-cyanophenoxy)phenyl)urea potently inhibits the phosphorylation of STAT3 by blocking STAT3 phosphorylation and activation, and induces apoptosis in hepatocellular carcinoma cell lines[1].
Targets(IC50)	Apoptosis,STAT
In vitro	Compound SC-1 (1-10 μM; 48 hours; breast cancer cells) treatment demonstrates dose-dependent suppression of cell viability in all tested breast cancer cells[1]. Compound SC-1 (1-10 μM; 36 hours; breast cancer cells) treatment induces potent apoptotic activity in association with downregulation of p-STAT3 and its downstream proteins cyclin D1 and survivin in a dose-dependent manner in breast cancer cell lines[1].
In vivo	Compound SC-1 showes efficacious antitumor activity and p-STAT3 downregulation in MDA-MB-468 xenograft tumors in vivo[1].
Animal Research	Compound SC-1 (10 mg/kg; oral gavage; daily; for 28 days; Female NCr athymic nude mice (4-6 weeks of age) injected with breast cancer cells) treatment shows efficacious antitumor activity and p-STAT3 downregulation in MDA-MB-468 xenograft tumors[1].

Solubility Information

Solubility	DMSO: 55 mg/mL (127.37 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.3159 mL	11.5794 mL	23.1589 mL
5 mM	0.4632 mL	2.3159 mL	4.6318 mL
10 mM	0.2316 mL	1.1579 mL	2.3159 mL
50 mM	0.0463 mL	0.2316 mL	0.4632 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Chun-Yu Liu, et al. Novel sorafenib analogues induce apoptosis through SHP-1 dependent STAT3 inactivation in human breast cancer cells. Breast Cancer Res. 2013;15(4):R63.